



CITRUS MAY FORECAST MATURITY TEST RESULTS

Cooperating with the Florida Department of Agriculture and Consumer Services
851 Trafalgar Ct, Suite 310E, Maitland, FL 32751-4132
(407) 648-6013 · (855) 271-9801 FAX · www.nass.usda.gov/fl

May 12, 2022

Florida All Orange Production is Up 5 percent from April
Florida Non-Valencia Orange Production Unchanged
Florida Valencia Orange Production Up 10 Percent
Florida All Grapefruit Production Down 6 Percent
Florida All Tangerine and Tangelo Unchanged

FORECAST DATES - 2021-2022 SEASON	
June 10, 2022	July 12, 2022

Citrus Production by Type – States and United States

Crop and State	Production ¹		2021-2022 Forecasted Production ¹	
	2019-2020 (1,000 boxes)	2020-2021 (1,000 boxes)	April (1,000 boxes)	May (1,000 boxes)
Non-Valencia Oranges ²				
Florida	29,650	22,700	18,200	18,200
California ³	43,300	41,300	43,000	43,000
Texas ³	1,150	1,000	250	250
United States.....	74,100	65,000	61,450	61,450
Valencia Oranges				
Florida	37,750	30,250	20,000	22,000
California ³	10,800	7,700	8,300	8,300
Texas ³	190	50	100	100
United States.....	48,740	38,000	28,400	30,400
All Oranges				
Florida	67,400	52,950	38,200	40,200
California ³	54,100	49,000	51,300	51,300
Texas ³	1,340	1,050	350	350
United States.....	122,840	103,000	89,850	91,850
Grapefruit				
Florida-All	4,850	4,100	3,600	3,400
Red	4,060	3,480	3,000	2,900
White	790	620	600	500
California ^{3,4}	4,700	4,200	4,100	4,100
Texas ³	4,400	2,400	2,000	2,000
United States.....	13,950	10,700	9,700	9,500
Lemons ³				
Arizona.....	1,800	750	1,500	1,500
California.....	25,300	20,100	23,000	23,000
United States.....	27,100	20,850	24,500	24,500
Tangerines and Tangelos				
Florida	1,020	890	800	800
California ³	22,400	28,800	21,000	21,000
United States.....	23,420	29,690	21,800	21,800

¹ Net pounds per box: oranges in California-80, Florida-90, Texas-85; grapefruit in California and Texas-80, Florida-85; lemons-80; and tangerines and mandarins in California-80, Florida-95.

² Early non-Valencia (including Navel) and mid-season non-Valencia varieties in Florida; Navel and miscellaneous varieties in California; Early and mid-season varieties in Texas.

³ Estimates carried forward from April forecast

⁴ Includes pummelos in California.

All Oranges 40.2 Million Boxes

The 2021-2022 Florida all orange forecast released today by the USDA Agricultural Statistics Board is raised 2.00 million boxes to 40.2 million boxes. If realized, this will be 24 percent less than last season's revised final production. The forecast consists of 18.2 million boxes of non-Valencia oranges (early, mid-season, and Navel varieties) and 22.0 million boxes of Valencia oranges.

Non-Valencia Oranges 18.2 Million Boxes

The forecast of non-Valencia orange production is held at 18.2 million boxes. Harvest is complete for the included varieties. The Navel forecast, included in the non-Valencia portion of the forecast at 490,000 boxes is 3 percent of the non-Valencia total.

Valencia Oranges 22.0 Million Boxes

The forecast of Valencia orange production is increased 2.00 million boxes to 22.0 million boxes. Weekly certifications in April averaged 2.08 million boxes. The Row Count survey conducted April 27-28, 2022, indicated 88 percent of the Valencia rows are harvested. Estimated utilization to May 1, including an allocation for other use, is 20.2 million boxes. Processors were surveyed regarding fruit processed through April 30th and the estimated quantity remaining to be processed to the end of the season. Analysis of estimated utilization to the first of the month and results of the processors report support increasing the Valencia orange forecast.

All Grapefruit 3.40 Million Boxes

The forecast of all grapefruit production is 3.40 million boxes. The white grapefruit forecast is lowered 100,000 boxes to 500,000 boxes. The red grapefruit forecast is lowered 100,000 boxes to 2.90 million boxes. Estimated utilization to May 1, with an allocation for non certified use, for white grapefruit is 498,000 boxes and for red grapefruit is 2.81 million boxes. The Row Count survey conducted April 27-28, 2022, indicated harvest is relatively complete for these varieties.

Tangerines and Tangelos 800,000 Boxes

The forecast for tangerines and tangelos is unchanged at 800,000 boxes. Harvest of tangerines and tangelos is relatively over for the season. Utilization to May 1, with an allocation for non-certified fruit, is 739,000 boxes. This forecast number includes all certified tangerine and tangelo varieties.

Reliability

To assist users in evaluating the reliability of the May 1 Florida production forecasts, the "Root Mean Square Error," a statistical measure based on past performance, is computed. The deviation between the May 1 production forecast and the final estimate is expressed as a percentage of the final estimate. The average of squared percentage deviations for the latest 20-year period is computed. The square root of the average becomes statistically the "Root Mean Square Error." Probability statements can be made concerning expected differences in the current forecast relative to the final end-of-season estimate, assuming that factors affecting this year's forecast are not different from those influencing recent years.

The "Root Mean Square Error" for the May 1 Florida all orange production forecast is 2.2 percent. If you exclude the three abnormal production seasons (three hurricane seasons), the "Root Mean Square Error" is 2.2 percent. This means chances are 2 out of 3 that the current all orange production forecast will not be above or below the final estimates by more than 2.2 percent, including or excluding abnormal seasons. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 3.8 percent including or excluding abnormal seasons.

Changes between the May 1 Florida all orange forecast and the final estimates during the past 20 years have averaged 2.26 million boxes (2.26 million, excluding abnormal seasons), ranging from 0.10 million boxes to 5.60 million boxes including abnormal seasons, (0.50 to 5.60 million boxes excluding abnormal seasons). The May 1 forecast for all oranges has been below the final estimate 12 times, above 8 times, (below 11 times, above 6 times, excluding abnormal seasons). The difference does not imply that the May 1 forecasts this year are likely to understate or overstate final production.

Maturity

Regular bloom fruit samples were collected from groves on established routes April 27-28, 2022, in Florida's five major citrus producing areas and tested April 29, 2022. Only Valencia oranges were collected and tested this month. All comparisons are made to May 1, 2021. Acids are higher and solids (Brix) are lower; ratios are lower. Unfinished juice per box is higher and solids per box are lower.

Unadjusted Maturity Tests – Florida: May 1, 2020-2021 and 2021-2022

[Averages of regular bloom fruit from sample groves. Juice and solids per box are unadjusted and not comparable to juice processing plant test results. Samples were run through an FMC 091B machine using pneumatic pressure. This machine utilizes a 0.025 short strainer and a 1.00-inch orifice tube for the 3 inch cup and a 1.25 inch orifice tube for the 4 inch and 5 inch cups]

Fruit type (number of groves) test date	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2020-2021	2021-2022	2020-2021	2021-2022	2020-2021	2021-2022	2020-2021	2021-2022	2020-2021	2021-2022
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
Valencia Oranges (18-23)										
Oct 1	1.78	2.03	8.68	8.66	4.93	4.30	49.17	45.59	4.28	3.95
Nov 1	1.50	1.61	8.78	9.06	5.93	5.69	51.23	48.60	4.50	4.41
Dec 1	1.28	1.39	9.21	9.23	7.22	6.72	51.05	50.97	4.71	4.71
Jan 1	1.07	1.22	9.72	9.60	9.15	7.93	53.33	53.05	5.17	5.10
Feb 1	1.04	1.05	10.36	9.82	10.07	9.35	53.56	50.85	5.55	5.00
Mar 1	0.89	0.98	10.71	10.12	12.23	10.40	54.41	51.19	5.84	5.19
Apr 1	0.80	0.86	10.94	10.23	13.89	12.06	52.56	53.03	5.76	5.44
May 1	0.71	0.75	11.29	10.25	16.22	13.89	54.12	54.65	6.12	5.60

Unadjusted Maturity Test Averages, by Areas – Florida: May 1, 2020-2021 and 2021-2022

Fruit type (number of groves)	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2020-2021	2021-2022	2020-2021	2021-2022	2020-2021	2021-2022	2020-2021	2021-2022	2020-2021	2021-2022
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
Valencia Oranges										
Indian River (3-6).....	(D)	0.82	(D)	10.62	(D)	13.08	(D)	55.48	(D)	5.90
Other Areas (15-17).....	0.72	0.72	11.32	10.12	16.08	14.18	53.89	54.35	6.11	5.50

(D) Not disclosed due to confidentiality.